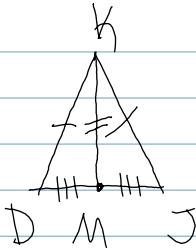


Given
 M is the
 midpoint
 of \overline{DJ}
 and
 $\overline{KD} \cong \overline{KJ}$



prove

$$\angle KDM \cong \angle KJM$$

Statement	Reason
M is the midpoint of \overline{DJ}	given
$\overline{KD} \cong \overline{KJ}$	given
$KD = KJ$	def. of \cong
K lies on the \perp Bis. of \overline{DJ}	Converse of the \perp Bis. Thm
\overline{KM} is the \perp Bis. of \overline{DJ}	def. of midpoint and \perp bisector
$\overline{KM} \cong \overline{KM}$	Reflexive property
$\overline{DM} \cong \overline{MJ}$	def. of midpoint
$\triangle KDM \cong \triangle KJM$	SSS \cong Post.
$\angle KDM \cong \angle KJM$	CPCTC

Base Angles Theorem -